# **Tennessee 2014-2016 Short-Term Industry Projections Summary**



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# Introduction

In the wake of the recent recession, the Tennessee economy has experienced steady improvement. From December 2013 to December 2014, Tennessee nonfarm employment increased by 67,300 jobs. According to the Center for Business and Economic Research at the University of Tennessee, 2014 was a year of positive economic improvement and a signal that the recovery from the recent recession will continue.<sup>1</sup>

The modest recovery from the recession is reflected in the 2014-2016 short-term projections. Various industries and occupations are expected to experience steady growth, while others may see a decline. Overall, the period of the second quarters of 2014 through 2016 is expected to see annual average growth of 1.6%. However, the data presented below has a slightly lower growth rate due to the inclusion of private household and self-employed and unpaid family workers.

# **Industry Analysis**

On average, total employment growth of 1.38% is expected each year with projected 2016 second quarter employment of 3,129,600. Goods producing and service-providing industries are projected to increase by 1.49% and 1.42%, respectively (see table 1). Construction is projected to continue its resurgence with a growth rate of 4.75% and projected 2016 employment of 117,000. Natural resources and mining, including wage and salary farm employment, is projected to experience 1.66% growth.

Manufacturing will see a slight increase of 0.37%, despite varying sectors of decline. Professional and business services are expected to grow by 3.34% with projected 2016 employment of 396,100. The leisure and hospitality and the financial activities sectors are expected to improve with growth rates of 2.82% and 1.14%, respectively. Rounding out the data, trade, transportation, and utilities may see 1.5% growth, while government will see a slight increase of 0.6%. Other services is expected to grow more slowly with 0.39% growth.

Overall, construction (4.75%), professional and business services (3.34%), and leisure and hospitality (2.82%) are expected to see the highest levels of growth during the 2014-2016 time frame. In contrast, manufacturing (0.37%), education and health services (0.14%), and information (-0.16%) are expected to see the smallest rates of growth, with information expected to decline slightly over the period (see figures 1 and 2).

<sup>&</sup>lt;sup>1</sup> Murray N, Matthew. (2015). An Economic Report to the Governor of the State of Tennessee. Knoxville: Center for Business and Economic Research, College of Business Administration, University of Tennessee, p 2).

**Table 1: Industry Overview (thousands)** 

Industry	2014 Employment	2016 Employment	Ave. Ann. Growth Rate (%)
Total All Industries	3,044.7	3,129.6	1.38
Goods Producing	459.5	473.3	1.49
Natural Resources and Mining	29.6	30.6	1.66
Construction	106.6	117	4.75
Manufacturing	323.3	325.7	0.37
Service Providing	2,404.5	2,473.1	1.42
Trade, Transportation, and Utilities	599.8	617.9	1.5
Information	43.9	43.7	-0.16
Financial Activities	136.8	139.9	1.14
Professional and Business Services	370.9	396.1	3.34
Education and Health Services	626.6	628.3	0.14
Leisure and Hospitality	302.5	319.8	2.82
Other Services (except Government)	130.2	131.2	0.39
Government	193.9	196.3	0.6

Source: TN Dept. of Labor & Workforce Development, LMI Section, TN Employment Projections 2014 Q2 to 2016 Q2.

Figure 1.

**Projected Goods Producing Employment (thousands)** 

Source: TN Dept. of Labor & Workforce Development, LMI Section, TN Employment Projections 2014 Q2 to 2016 Q2.

700
600
500
400
300
200
100
0

Trade, Tangar, and Util.

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Figure 2.

Projected Service-Providing Employment (thousands)

Source: TN Dept. of Labor & Workforce Development, LMI Section, TN Employment Projections 2014 Q2 to 2016 Q2.

# **Occupational Analysis**

A total of 121,300 job openings are expected annually during the period from the second quarter of 2014 to second quarter of 2016, with six of every 10 openings created by net turnover or workers leaving the labor force. The top openings categories include food preparation services and related occupations (17,825), office and administrative support occupations (16,305), sales and related occupations (13,925), and transportation and material moving occupations (12,060). The next highest are production occupations (9,460), management occupations (7,150), and construction and extraction occupations (5,410). Detailed information by major occupational group regarding expected employment growth and annual average job openings due to both growth and job separations can be found in table 2 below.

# **Most Rapidly Growing Occupational Groups**

The five occupational groups with the most rapid annual growth rates include construction and extraction, computer and mathematical, food preparation and serving- related, business and financial operations, and transportation and material moving.

**Table 2: Occupational Overview** 

	2014	2016	Employment	
Occupation Title	Employment	Employment	Change	ATO
Management Occupations	202,260	209,000	6,740	7,150
Business and Financial Operations				
Occupations	111,460	116,590	5,130	4,775
Computer and Mathematical Occupations	50,210	53,140	2,930	2,215
Architecture and Engineering Occupations	43,430	45,060	1630	1,820
Life, Physical, and Social Science Occupations	17,490	17,640	150	635
Community and Social Service Occupations	47,150	48,690	1,540	1,830
Legal Occupations	15,600	15,440	-160	240
Education, Training, and Library Occupations	165,460	163,310	-2,150	3,745
Arts, Design, Entertainment, Sports, and				
Media Occupations	44,800	45,900	1,100	1,655
Healthcare Practitioners and Technical				
Occupations	189,890	192,100	2,210	4,805
Healthcare Support Occupations	80,510	82,390	1,880	2,355
Protective Service Occupations	65,300	66,300	1,000	2,270
Food Preparation and Serving Related				
Occupations	256,740	270,390	13,650	17,825
Building and Grounds Cleaning and				
Maintenance Occupations	115,420	116,530	1,110	3,250
Personal Care and Service Occupations	99,200	100,310	1,110	4,020
Sales and Related Occupations	292,940	300,690	7,750	13,925
Office and Administrative Support				
Occupations	469,720	480,350	10,630	16,305
Farming, Fishing, and Forestry Occupations	18,600	19,050	450	770
Construction and Extraction Occupations	103,820	111,060	7,240	5,410
Installation, Maintenance, and Repair				
Occupations	125,080	128,960	3,880	4,790
Production Occupations	258,850	265,450	6,600	9,460
Transportation and Material Moving				
Occupations	270,740	281,230	10,490	12,060
Total	3,044,670	3,129,570	84,900	121,300

<sup>\*</sup>Annual average openings due to job growth and job separations\*

Source: TN Dept. of Labor & Workforce Development, LMI Section, TN Employment Projections 2014 Q2 to 2016 Q2 . Key for Above Table

ATO= Annual Total Openings due to both growth and permanent job separations.

**Analysis** of some of the larger occupational groups in each category follows. The number of new jobs expected to be created is listed. Additional jobs will be created by current workers separating from these jobs during the study period.

## **Construction and extraction occupations**

Jobs in 2014: 103,820

Projected Jobs in 2016: 111,060 Annual Growth Rate: 3.43 percent

#### Largest employment sectors

2014	2016
Self Employed and Unpaid Family	Self Employed and Unpaid Family Workers:
Workers:16,460	17,400
Construction: 58,550	Construction: 64,330

Supervisors of construction and extraction workers have an expected 2016 employment of 10,170, with 430 new jobs created by the year ending June 30, 2016. Total jobs including replacement openings for that year are expected to total 540. By 2016, the number of construction trade workers is projected to be 86,250, with an estimated 2, 930 new jobs and 4,350 total job openings. This growth is expected as construction industry employment expands through 2016.

#### Computer and mathematical occupations

Jobs in 2014: 50,210

Projected Jobs in 2016: 53,140 Annual Growth Rate: 2.87 percent

#### Largest employment sectors

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2014	2016
Education and Health Services: 6,930	Education and Health Services: 6,960
Professional and Business Services: 21,660	Professional and Business Services: 24,040

As a result of the growing technology industry in Tennessee, computer and mathematical- based occupations are expected to continue their increase. Computer occupations as a whole are projected to increase to 50,760 by 2016, an increase of 1,390 new jobs, 2,090 annual openings, and an annual growth rate of 2.9 percent.

### Food preparation and serving related occupations

Jobs in 2014: 256,740

Projected Jobs in 2016: 270,390 Annual Growth Rate: 2.62 percent

Large Employment sectors

2014	2016
Education and Health Services: 19,550	Education and Health Services: 19,180
Leisure and Hospitality: 216,860	Leisure and Hospitality: 230,100

The number of cooks and food preparation workers will increase to 82,660 by 2016, with expected 1,640 new jobs and 3,470 total openings. The number of food and beverage serving workers is expected to top 139,260 by 2016, an increase of 3,900 jobs. Their expected 10,350 total job openings are the largest of any occupational minor group.

## Business and financial operations occupations

Jobs in 2014: 111,460

Projected Jobs in 2016: 116,590 Annual Growth Rate: 2.27 percent

#### Large Employment sectors

2014	2016
Financial Activities: 22,340	Financial Activities: 22,860
Professional and Business Services: 28,530	Professional and Business Services: 31,170

Business and operations specialists will have a projected 69,090 jobs, creating 1,470 new and 2,530 annual job openings. Financial specialists are expected to grow to 47,490 employees by 2016 and create 1,140 new jobs and 2,240 annual openings. Growth in these occupations will be fueled by expansion in the professional and business services sector, which is expected to have the second-fastest growth rate of Tennessee's industry sectors.

#### Transportation and material moving occupations

Jobs in 2014: 270,740

Projected Jobs in 2016: 281,230 Annual Growth Rate: 1.92 percent

#### Large Employment sectors

2014	2016
Trade, Transportation, and Utilities: 151,040	Trade, Transportation, and Utilities: 156,140
Professional and Business Services: 40,500	Professional and Business Services: 44,530

The recovery of the economy will create jobs for those who distribute Tennessee's goods within businesses and across the state. The number of motor vehicle operators will increase to 110,450 by 2016, producing 1,550 new jobs and annual total openings of 3,290. This will include 1,870 total openings for tractor-trailer truck drivers and 840 openings for delivery services drivers.

The major occupations expected to decline include ticket agents and travel clerks, with a predicted decline of -25.4%. Sewing machine operators and tire builders are expected to decline at rates of -10.7% and -7.35%, respectively, supporting evidence of declining manufacturing employment in some sectors.

# **Job Requirements Projections**

The number of jobs in 2014 that typically required high school or less than high school education was 2,085, 130, compared to 959,540 which required some college or more. The growth rate for jobs requiring high school or less is expected to be about 3.1 percent. Jobs requiring a bachelor's or master's degree will likely grow almost as rapidly at 2.7 percent.

Table 3. Employment by educational requirements, 2014-2016

Education Levels	2014 Employment	Projected 2016 Employment	Change 2014-2016
Doctoral or professional degree	68,840	69,640	800
Master's degree	48,930	49,510	590
Bachelor's degree	473,940	487,450	13,520
Associate's degree	127,924	128,150	220
Some college, no degree	32,660	32,680	20
Postsecondary non-degree award  High school diploma or	207,250	212,070	4,820
equivalent	1,241,940	1,274,860	32,920
Less than high school	843,190	87,210	32,020
Grand Total	3,044,670	3,129,570	84,910

Source: TN Dept. of Labor & Workforce Development, LMI Section, TN Employment Projections 2014 Q2 to 2016 Q2. Numbers may not add due to rounding.

	2014	2016	2014-2016
Category	Employment	Employment	Percent Growth
HS plus less than HS	2,085,130	2,150,070	3.1
Bachelor's and masters degrees only	522,860	536,970	2.7

Major job categories generally requiring a bachelor's degree or more are listed below:

- Management
- Business and Financial Operations
- Computer and Mathematical

- Architecture and Engineering
- Life, Physical, and Social Science
- Community and Social Services
- Legal
- Education, Training, and Library
- Arts, Design, Entertainment, Sports, and Media
- Healthcare Practitioners and Technical

Business and financial and computer and mathematical occupations are among Tennessee's fastest growing occupational categories.

## Below are the major Job Categories that Primarily Require a High School Diploma

- Protective Service
- Personal Care and Service
- Office and Administrative Support
- Installation, Maintenance, and Repair
- Production

Additional information on detailed industry and occupational growth rates, job requirements, and training opportunities are available in the Labor Market Information section of www.jobs4tn.gov.